Serial Number: 10/749,133

Filing Date: December 30, 2003

Title: A SUPPLY SOURCE PROVIDING MULTIPLE SUPPLY VOLTAGES

## **IN THE CLAIMS**

Please amend the claims as follows:

1. (Currently Amended) A system comprising:

a plurality of electronic devices, each electronic device configured to operate under a different supply voltage;

a single supply source having multiple voltage taps to provide the different supply voltages without up-converting a voltage level or down-converting a voltage level The hearing aid of claim 3, wherein the common substrate is an insulating alumina substrate.

- 2. (Currently Amended) The system hearing aid of claim [[1]] 7, wherein the single supply source is a battery having multiple voltage taps.
- 3. (Currently Amended) The system hearing aid of claim 2, wherein the battery includes a common substrate on which a plurality of battery regions are disposed, each battery region providing a supply voltage, the supply voltage of at least one battery region at a rated voltage level different than the other battery regions from another battery region of the plurality of battery regions.
- 4. (Currently Amended) The system <u>hearing aid</u> of claim 3, wherein the common substrate is a rigid <u>ceramic</u> platform substrate.
- 5. (Currently Amended) The system hearing aid of claim 3, wherein the common substrate is a flexible platform in a folded configuration.
- 6. (Currently Amended) The system hearing aid of claim 3, wherein the common substrate is a flexible platform in a rolled configuration.

7. (Currently Amended) The system of claim 3, wherein the system is a  $\underline{A}$  hearing aid comprising:

<u>a plurality of electronic devices, each electronic device configured to operate under a</u> <u>different supply voltage;</u>

a single supply source having multiple voltage taps to provide the different supply voltages without up-converting a voltage level or down-converting a voltage level; and

a housing containing the plurality of electronic devices and the single supply source, the housing structured to mount in or about an ear of a person.

- 8. (Currently Amended) The system hearing aid of claim 7, wherein the hearing aid further includes a battery management unit having circuitry to monitor the voltage level of each battery region.
- 9. (Currently Amended) The system hearing aid of claim 8, wherein the battery management unit includes circuitry to output an audible notice when the voltage level of a battery region reaches a minimum operational level.
- 10. (Currently Amended) The system hearing aid of claim 7, wherein the battery includes three battery regions on a common substrate.
- 11. (Currently Amended) The system hearing aid of claim 7, wherein the battery includes a 1.3V tap, a 2.6V tap, and a 3.8V tap.
- 12. (Currently Amended) The system <u>hearing aid</u> of claim 7, wherein the hearing aid further includes a battery recharge control.
- 13. (Currently Amended) The system <u>hearing aid</u> of claim 12, wherein the battery recharge control includes a switching circuit to independently couple a voltage tap to a recharge circuit.
- 14. (Currently Amended) The system hearing aid of claim 12, wherein the battery recharge

control includes a number of voltage regulators to limit the voltage recharge to a voltage at or below a selected recharge voltage level.

- 15. (Currently Amended) The system hearing aid of claim 7, wherein the hearing aid includes a switching network to selectively switch an electronic device of the plurality of electronic devices to any voltage tap of the multiple voltage taps.
- 16. (Currently Amended) The system hearing aid of claim 7, wherein the hearing aid includes:
  - a microphone;
  - a signal processor; and
- an amplifier, wherein each of the microphone, the signal processor, and the amplifier are powered by a different voltage tap of the battery.
- (Currently Amended) The system hearing aid of claim 7, wherein the hearing aid further 17. includes one or more regulators, each regulator associated with a different voltage tap of the battery.
- 18. (Currently Amended) The system hearing aid of claim 7, wherein the hearing aid further includes a wireless link that operates with a supply voltage greater than 1.3V.
- 19. (Currently Amended) A hearing aid comprising:
- a plurality of electronic devices, each electronic device configured to operate under a different supply voltage;
- a battery to provide the different supply voltages without up-converting a voltage level or down-converting a voltage level; and
- a housing containing the plurality of electronic devices and the single supply source, the housing structured to mount in or about an ear of a person, wherein the battery comprising includes:

a substrate;

Title: A SUPPLY SOURCE PROVIDING MULTIPLE SUPPLY VOLTAGES

a plurality of battery regions disposed on the substrate, each battery region to provide a different supply voltage;

a plurality of buffer regions, one or more buffer regions separating each battery region; and

a plurality of voltage taps, wherein each battery region has a voltage tap.

- 20. (Currently Amended) The battery hearing aid of claim 19, wherein the substrate is a rigid platform.
- 21. (Currently Amended) The battery hearing aid of claim 19, wherein the substrate is a flexible platform such that the battery has [[in]] a folded configuration.
- 22. (Currently Amended) The battery hearing aid of claim 19, wherein the substrate is a flexible platform such that the battery has [[in]] a rolled configuration.
- 23. (Currently Amended) The battery hearing aid of claim 19, wherein the number of battery regions is three.
- 24. (Currently Amended) The battery hearing aid of claim 19, wherein the battery includes a 1.3V supply voltage, a 2.6V supply voltage, and a 3.8V supply voltage.
- 25. (Currently Amended) The battery hearing aid of claim 19, further including a reference contact common to each battery region.
- 26. (Currently Amended) The battery hearing aid of claim 19, further including a number of reference contacts, each reference contact coupled to a different battery region.
- 27. (Currently Amended) The battery hearing aid of claim 19, wherein one or more of the battery regions are rechargeable.

28. (Currently Amended) A method of manufacturing a hearing aid comprising:
mounting a number of electronic devices into a housing of a hearing aid, the housing
structured to mount in or about an ear of a person, each electronic device configured to operate
under a different supply voltage; and

providing the hearing aid with a single supply source to provide the different supply voltages without up-converting a voltage level or down-converting a voltage level.

- 29. (Original) The method of claim 28, wherein providing the hearing aid with a single supply source includes providing the hearing aid with a battery having multiple voltage taps.
- 30. (Currently Amended) The method of claim 29, wherein providing the hearing aid with a battery having multiple voltage taps includes providing the battery having a common substrate on which a plurality of battery regions are disposed, each battery region providing a supply voltage, the supply voltage of at least one battery region at a rated voltage level different than the other from another battery region of the plurality of battery regions.
- 31. (Original) The method of claim 30, wherein providing a battery having a common substrate includes providing the battery with the common substrate formed as a rigid platform.
- 32. (Original) The method of claim 30, wherein providing a battery having a common substrate includes providing the battery with the common substrate formed as a flexible platform in a folded configuration.
- 33. (Original) The method of claim 30, wherein providing a battery having a common substrate includes providing the battery with the common substrate formed as a flexible platform in a rolled configuration.
- 34. (Original) The method of claim 29, wherein the method further includes providing a wireless link that operates with a supply voltage greater than 1.3V.